

Pipelayer

RL 56

Litronic®

Max. Lift Capacity

72,000 kg / 158,733 lb

Engine

210 kW / 281 HP (SAE J1349)

210 kW / 286 HP (ISO 9249)

Stage IIIA/Tier 3

Stage IV/Tier 4f



LIEBHERR

Technical Data



Engine

Liebherr Diesel engine	D 936 A7 Emission regulations according to 97/68/EC, 2004/26/EC Stage IIIA/Stage IV, EPA/CARB Tier 3/Tier 4f
Rated power ISO 9249 SAE J1349	210 kW/286 HP 210 kW/281 HP
Rated speed	1,800 rpm
Displacement	10.5 l/641 in ³
Design	6 cylinder in-line engine, water-cooled, turbocharged, air-to-air intercooler
Injection system	Direct fuel injection, Common Rail, electronic control
Lubrication	Pressurised lube system, engine lubrication guaranteed for inclinations up to 45°
Operating voltage	24 V
Alternator	140 A
Starter	7.8 kW/11 HP
Batteries	2 x 180 Ah/12 V
Air cleaner	Dry-type air cleaner with pre-cleaner, main and safety elements, control light in the operator's cab
Cooling system	Combi radiator, comprising radiators for water and charge air. Hydrostatic fan drive



Hydraulics

Hydraulic system	Load sensing (demand controlled)
Pump type	Swash plate piston pump
Pump flow max.	283 l/min./74.7 gpm
Pressure limitation	280 bar/4,060 psi
Control valve	3 circuits, expandable to 6
Filter system	Return filter with magnetic rod in the hydraulic tank
Control	Single joystick for hoist winch and adjustable boom cylinder, free all device of hook in case of danger. Further single joystick for counterweight.



Travel Drive, Control

Transmission system	Infinitely variable hydrostatic travel drive, independent drive for each track
Travel speed*	Continuously variable
Speed range 1 (reverse):	0 – 4.0 km/h/2.5 mph (4.8 km/h/3.0 mph)
Speed range 2 (reverse):	0 – 6.5 km/h/4.0 mph (7.8 km/h/4.8 mph)
Speed range 3 (reverse):	0 – 10.5 km/h/6.5 mph (10.5 km/h/6.5 mph)
	* Travel speed ranges can be set on the travel joystick (memory function)
Electronic system	The electronic system automatically adjusts travel speed and drawbar pull to match changing load conditions
Steering	Hydrostatic
Service brake	Hydrostatic (self-locking), wear-free
Parking brake	Multi-disc brake, wear-free, automatically applied with neutral joystick position
Cooling system	Separate oil cooler, hydrostatic fan drive and thermostatically controlled
Filter system	Micro cartridge filter in the replenishing circuit
Final drive	Combination spur gear with planetary gear, double-sealed (duo cone seals) with electronic seal-integrity indicator
Control	Single joystick for all travel and steering functions



Operator's Cab

Cab	Resiliently mounted cab with positive pressure ventilation, can be tilted with hand pump 40° to the rear. With integrated ROPS Rollover Protective Structure (EN ISO 3471)
Operator's seat	Air suspended comfort seat, fully adjustable
Monitoring	Touch screen: display of current machine information, automatic monitoring of operating conditions, individual setting of machine parameters

Undercarriage

Design	Track frame, rigid
Mounting	Elastic components at a separate pivot
Track chains	Lubricated, single-grouser shoes, tensioning via steel spring and grease tensioner
Links, each side	45
Track rollers, each side	9
Carrier rollers, each side	2
Sprocket segments, each side	5
Track shoes	914 mm/36"

Sound Levels

Operator sound exposure ISO 6396	
L _{PA} (in the cab)	78 dB(A)
Exterior sound pressure 2000/14/EC	
L _{WA} (to the environment)	108 dB(A)

Refill Capacities

Fuel tank	505 l/ 133.3 gal
Cooling system	60 l/ 15.08 gal
Engine oil with filter	43 l/ 11.4 gal
Splitter box	8.5 l/ 2.2 gal
Hydraulic tank	112 l/ 29.6 gal
Final drive, each side	19.5 l/ 5.1 gal

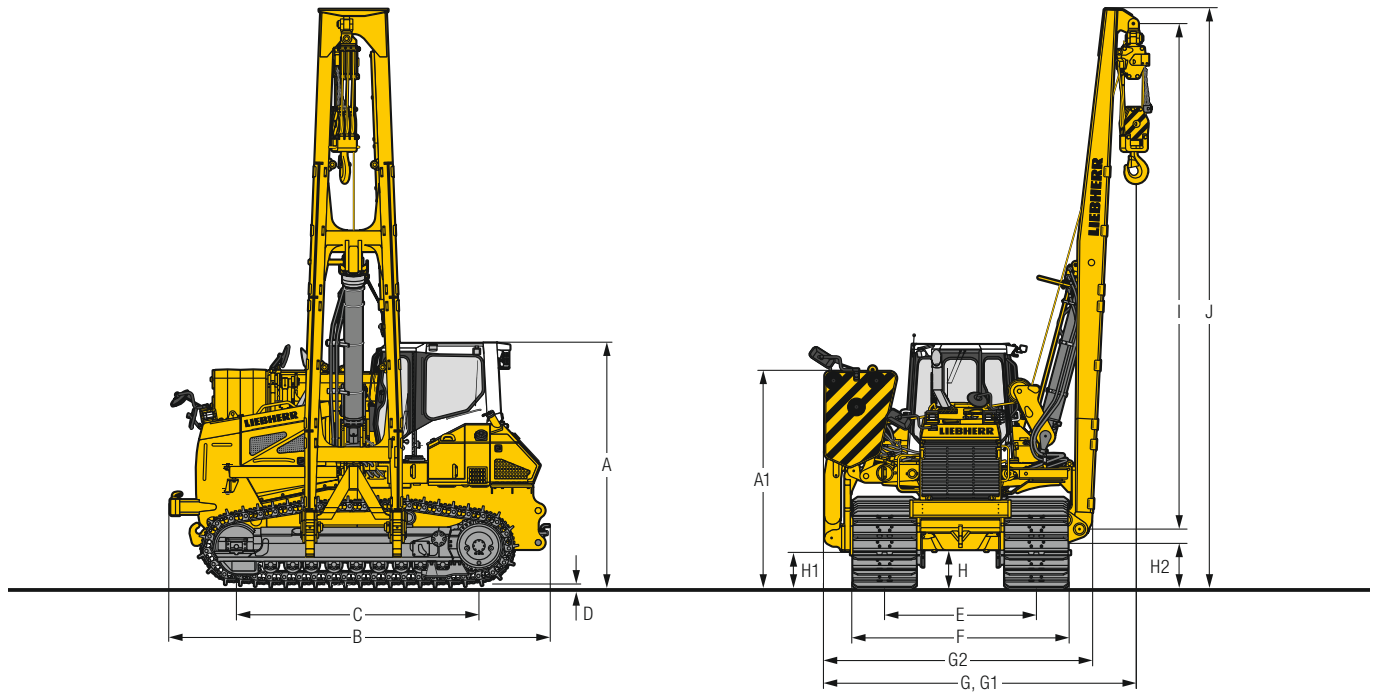
Hydraulic Winch

Hoist winch	Variable flow hydraulic pump
Safety brake	Spring-loaded disk brake holds the load safely in any position
Drum diameter	254 mm/10"
Drum length	274 mm/10.79"
Flange diameter	610 mm/24.02"
Cable diameter	20 mm/0.8"
Cable length	80 m/87.49 yd
Hook block	3 sheaves
Hook speed (up, down)	0 – 20.0 m/min/0 – 66 ft/min
Security	Free fall device

Dawbar Pull

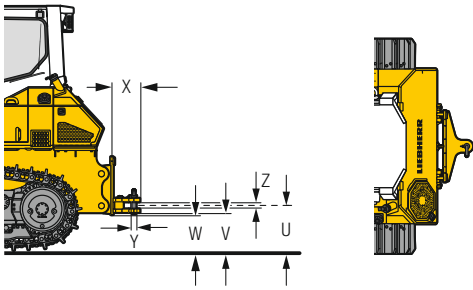
Max.	387 kN
at 1.5 km/h/0.9 mph	387 kN
at 3.0 km/h/1.9 mph	216 kN
at 6.0 km/h/3.7 mph	108 kN
at 9.0 km/h/5.6 mph	72 kN

Dimensions and Weights



Dimensions

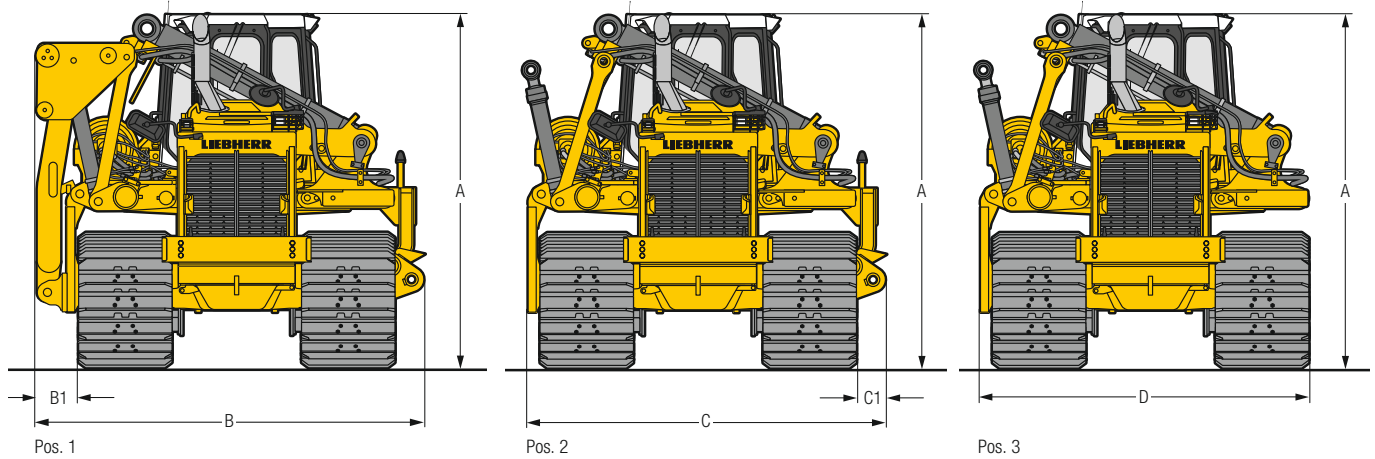
Boom		Standard 7,300 mm	Optional 8,500 mm	
A	Height over cab	mm / ft-in	3,529 / 11'7"	
A ₁	Height over counterweight	mm / ft-in	3,068 / 10'1"	
B	Overall length	mm / ft-in	5,446 / 17'10"	
C	Length of track on ground	mm / ft-in	3,504 / 11'6"	
D	Height of grousers	mm / in	71 / 2.8"	
E	Track gauge	mm / ft-in	2,180 / 7'2"	
F	Total width over undercarriage	mm / ft-in	3,094 / 10'5"	
G	Width (counterweight retracted)	mm / ft-in	3,785 / 12'5"	
G ₁	Width (counterweight extended)	mm / ft-in	5,544 / 18'2"	
G ₂	Width (console to boom)	mm / ft-in	3,785 / 12'5"	
H	Ground clearance	mm / ft-in	501 / 1'8"	
H ₁	Ground clearance of console	mm / ft-in	548 / 1'10"	
H ₂	Ground clearance of boom	mm / ft-in	747 / 2'5"	
I	Boom length	mm / ft-in	7,300 / 23'11"	8,500 / 27'11"
J	Total height	mm / ft-in	8,281 / 27'2"	9,481 / 31'1"
K	Distance (outer edge of chain link to hook)	mm / ft-in	1,200 / 3'11"	
Operating weight		kg / lb	46,050 / 101,523	46,280 / 102,030
Counterweight without frame		kg / lb	9,534 / 21,019	
Counterweight		kg / lb	12,730 / 28,065	
Weight of standard boom		kg / lb	2,264 / 4,991	2,497 / 5,505



Drawbar

			rigid
U	Height of jaw	mm / ft-in	576 / 1'11"
V	Ground clearance below drawbar	mm / ft-in	474 / 1'7"
W	Ground clearance below drawbar suspension	mm / ft-in	424 / 1'5"
X	Additional length	mm / ft-in	435 / 1'5"
Y	Socket pin diameter	mm / in	60 / 2.36"
Z	Jaw opening	mm / in	105 / 4.13"
	Weight	kg / lb	460 / 1,014

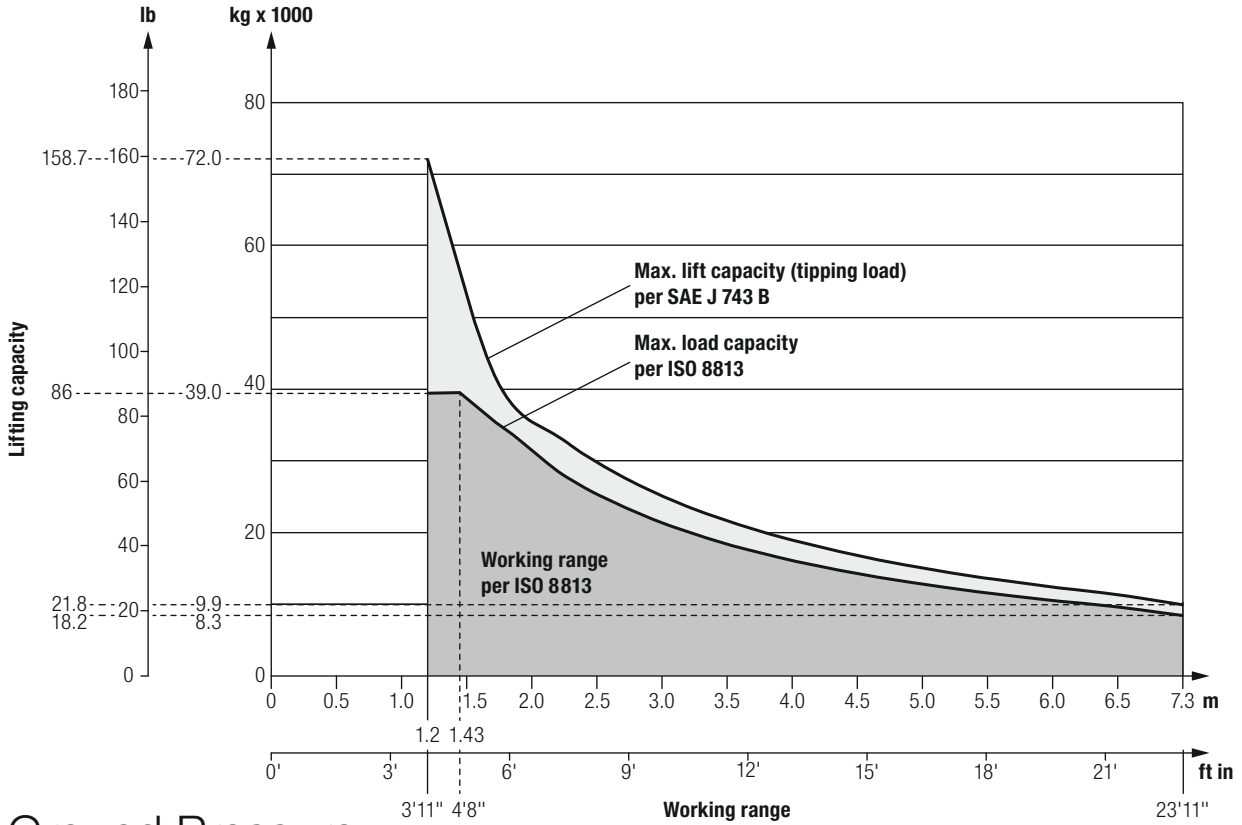
Transport Dimensions and Weights



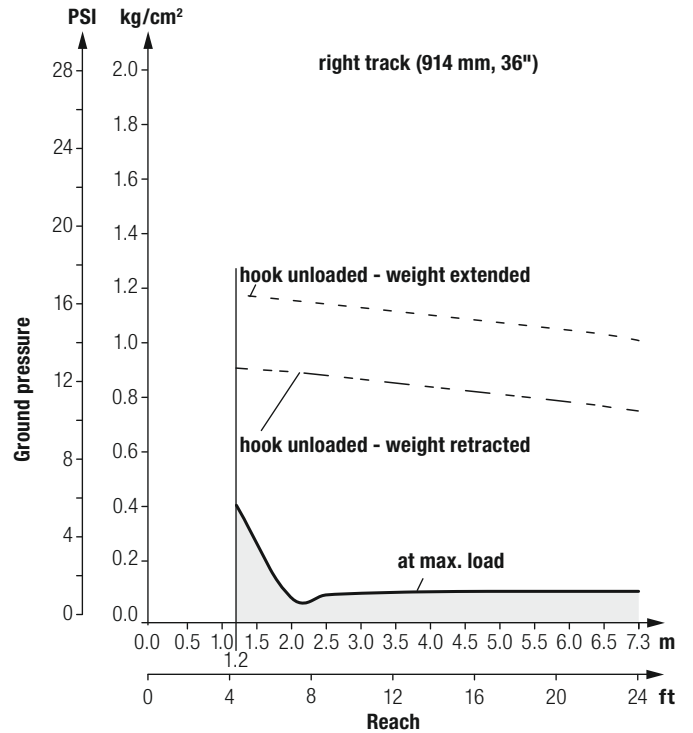
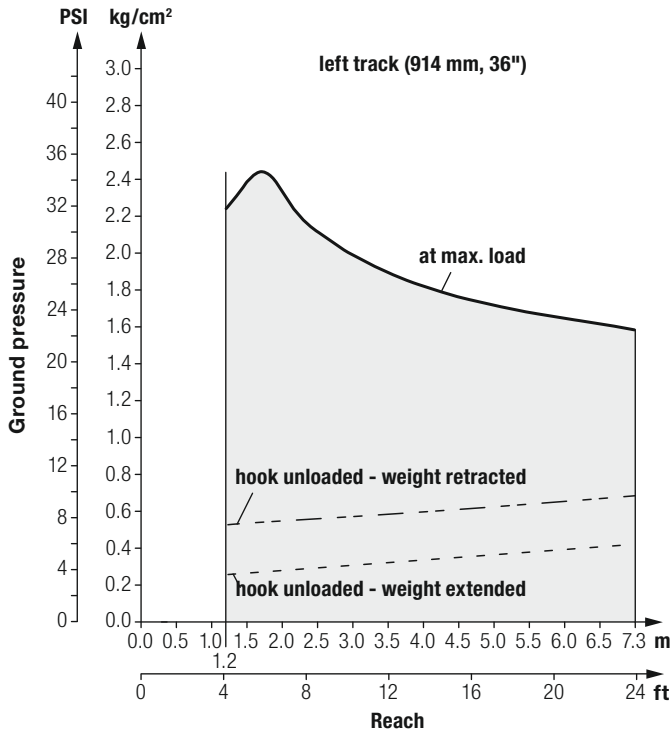
Transport Dimensions

			displayed position
A	Total height	mm / ft-in	3,529 / 11'7"
B	Overall width	mm / ft-in	3,500 / 11'6"
B₁	Width (from console to left track)	mm / ft-in	406 / 1'4"
	Weight (Pos. 1)	kg / lb	33,656 / 74,199
C	Overall width	mm / ft-in	3,497 / 11'6"
C₁	Width (from console to right track)	mm / in	285 / 11.22"
	Weight (Pos. 2)	kg / lb	31,690 / 69,864
D	Overall width	mm / ft-in	3,212 / 10'6"
	Weight (Pos. 3)	kg / lb	31,023 / 68,394

Lift Capacity (ISO 8813)



Ground Pressure (ISO 8813)



Equipment



Base Machine

Air filter with automatic dust ejector	+
Air filter, dry type, dual step, with pre-filter	•
Air pre-filter, Top Air	1)
Battery compartment, lockable	•
Cooling fan front, tilt-out	•
Cooling fan rear, tilt-out	•
Cooling fan, hydraulically driven	•
Cooling fan, with safety guard	•
Data interface for data transmission (e.g. J1939)	1)
DEF tank, lockable ²⁾	•
Diesel tank condensate drain	•
Double-glazing	+
Dust ejector, automatic	+
Dust ejector, manual	+
Dust extraction valve	•
Engine compartment doors, lockable	•
Engine cover, perforated	•
Engine doors, perforated	•
Fan reversal, manual (for operation at extremely low temperatures)	1)
Filling with hydraulic fluid, cold resistant	+
Filling with Liebherr Basic 100 hydraulic fluid	+
Filling with Liebherr HVI hydraulic fluid	•
Fuel pre-filter, with electric heater	+
Fuel water separator	•
Fuel water separator with electric heater	+
Hot water heater with priority engine pre-heating and battery heating panel, disengageable	+
Insulation on battery compartment	+
Jump-start equipment	1)
LiDAT – Data transmission system	+
Lifting cable	•
Load torque limitation	+
Lugs for crane lifting	+
Radiator guard heavy duty, front	•
Radiator guard hinged, front	•
Radiator, wide-meshed	•
Refuelling pump	+
Running gear components, cold-resistant	+
Simultaneous adjustment for travelling drive (dozer track)	1)
Special paint, several colours	+
Special paint, single colour	+
Tarpaulins	+
Tool kit extended	+
Towing hitch rear	•
Towing lug front	•



Undercarriage

Master link, two-piece	•
Pivot shaft, separate	•
Sprocket segments, bolted	•
Track frame, closed	•
Track frame, rigid	•
Track guide centre part	+
Tracks, oil-lubricated	•



Operator's Cab

Air-conditioner	•
Armrests 3D adjustable	•
Cab heating	1)
Coat hook	•
Dome light	•
Dormer window	•
Enclosed cab	•
Extension, seat back	+
Fire extinguisher in the cab	+
FOPS	1)
Joystick control	•
Operator's seat Comfort, air-suspended	+
Operator's seat Premium, air-suspended	+
Operator's seat Standard, mechanical	•
Premium touchscreen display	•
Pressurised cab	•
Protective bracket for sensor on drive hydraulics	1)
Protective bracket for sensor on operating hydraulics	1)
Radio	+
Radio preparation kit	+
Rear mirror left and right	+
Rear mirror, inside	•
Rear view camera	+
ROPS integrated	•
Safety glass tinted	•
Sliding window for right-hand side windows	+
Socket 12 V	•
Sunblind, all around	+
Tilttable cab	•
Warm water heating	•
Warm water heating with priority for cab	+
Wide-angle interior mirror for reversing	•
Windshield wiper dormer window	1)
Windshield wipers for all windows and doors in the cab without side window right and without dormer window	•



Travel Drive

Electronic control	•
Emergency stop	•
Final drives planetary gear	•
Inch brake pedal	1)
Load limit control, electronic	•
Oil cooler	•
Parking brake, automatic	•
Travel control, 3 speed ranges	•
Travel drive, hydrostatic	•

• = Standard

+ = Option

1) on demand

2) only for stage IV/Tier 4f

Equipment



Electrical System

1 halogen working lights on right side on cable winch	•
2 cold start batteries	•
2 halogen working lights on engine hood, front	•
2 halogen working lights on the cab, rear	•
3 halogen working lights on left side	•
All working lights in LED version	+
Alternator 140 A	•
Back-up alarm	+
Back-up alarm acoustic, disengageable	+
Battery main switch mechanical, lockable	•
Amber beacon	+
Horn	•
Immobiliser, electronic	1)
On-board voltage 24 V	•
Starter	•



Control and Warning Lights

Display engine coolant temperature	•
Display fuel level (digital)	•
Display travel speed ranges	•
Hour meter (digital)	•
Indicator light air filter contamination	•
Indicator light battery charge	•
Indicator light diesel engine	•
Indicator light hydraulic oil temperature	•
Indicator light oil filter contamination	•
Indicator light oil level in hydraulic oil tank	+
Indicator light pump replenishing pressure	•
Indicator parking brake	•
Overload warning system	+



Hydraulic System

3 additional circuit segments	+
3 control blocks	•
Free fall device	•
Hydraulic control counterweight	•
Hydraulic control winch and boom	•
Hydraulic servo control	•
Hydraulic tank oil level control	+
Oil filter in hydraulic tank	•
Variable flow pump, load-sensing	•



Attachments

Boom 24'	•
Boom 27'10"	+
Boom protection strips	+
Counterweight	•
Counterweight, rear	+
Drawbar rear, rigid with two lugs	+
Hook with rope	•
Hydraulic attachment kit for hydraulic pump, e.g. for crane	1)
Hydraulic attachment kit for operation of generator and pipefacing	+
Mounting plate for third-party equipment	1)
Winch, rear	1)

• = Standard

+ = Option

1) on demand

Options and/or special attachments, supplied by vendors other than Liebherr, are only to be installed with the knowledge and approval of Liebherr in order to retain warranty.

The Liebherr Group of Companies



Diverse Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's quality products and services hold a high reputation in many industries. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional Customer Benefit

Every product line provides a complete range of models in many different versions. With both their technical excellence and superior quality, Liebherr products offer customers the highest benefits in practical applications.

State-of-the-art Technology

Liebherr attributes great importance to the product areas of core technology and components, in order to achieve its consistent, top-quality products. Important modules and components are developed and manufactured in-house, for instance, the entire drive and control technology for the construction equipment and mining trucks.

Worldwide and Family-Owned

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with more than 48,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

www.liebherr.us

WARNING

This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.
For more information go to www.P65warnings.ca.gov.

WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- ▶ Always start and operate the engine in a well-ventilated area.
- ▶ If in an enclosed area, vent the exhaust to the outside.
- ▶ Do not modify or tamper with exhaust system.
- ▶ Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel.

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